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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,495	08/22/2001	Nobuo Mamada	3246/FLK/DIV of 2798/FLK	8056
26304	7590	01/26/2004	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585			GOFF II, JOHN L	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 01/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,495

Applicant(s)

MAMADA, NOBUO

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-26, 28-30, 32, 33, 35, 36, 38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-26, 28-30, 32, 33, 35, 36, 38 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/441,960.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This action is in response to the Amendment filed on 11/3/03. The 35 USC 102/103 rejection of the claims using Blackadar et al. is withdrawn in view of applicants amendment to require "applying to the capacitors voltages which have frequencies varying in an audible frequency band" as Blackadar et al. does not specifically disclose operating the capacitors at the claimed voltages it being noted though that the voltages claimed are over a wide range (20 Hz – 20 KHz) and the capacitors taught by Blackadar et al. are capable of operating at these voltages.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 22-26, 28-30, 32, 33, 35, 36, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (Specification pages 1 and 2) in view of Blackadar et al. (U.S. Patent 6,336,365).

The admitted prior art is directed to mounting a multilayer capacitor on the front surface of a circuit board. The admitted prior art teaches that during operation the multilayer capacitor produces vibrations that cause the circuit board to resonate and produce audible sounds, i.e. voltages which have frequencies varying in an audible frequency band are applied to the multilayer capacitor resulting in the circuit board moving outside of its neutral axis (Specification pages 1 and 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the admitted prior by mounting an identical

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multilayer capacitor on the back side of the circuit board in the manner as suggested by Blackadar et al. to create a circuit board wherein the multilayer capacitors do not substantially effect the neutral axis of the circuit board and thus vibrations are reduced.

Blackadar et al. are directed to an accelerometer. Blackadar et al. teach a circuit board (710) comprising a front surface and a back surface and lands (704) formed on each surface at substantially plane-symmetrical positions, every two lands are connected to each other by a through hole (702) (See Figure 7). Blackadar et al. teach a multilayer capacitor (708) (e.g. a transducer) comprising a body having dielectric layers (706) and internal electrode layers (P1A, P2A) and a pair of terminal electrodes (714a, 714b) formed on two sides of the body, the dielectric layers and internal electrode layers are connected to the terminal electrodes in a parallel, alternate manner (See Figure 7 and Column 13, lines 19-22). Blackadar et al. teach mounting the multilayer capacitor on the lands of the front surface of the circuit board to form an accelerometer (Figure 7 and Column 13, lines 22-25). Blackadar et al. teach a second multilayer capacitor may be coupled to the first multilayer capacitor by mounting the second capacitor on the lands of the back surface of the circuit board so that mounting multilayer capacitors on the circuit board does not substantially effect the neutral axis of the accelerometer (Figures 6A-6C and Column 11, lines 39-45 and Column 13, lines 27-31).

Regarding claims 28 and 35, it would have been obvious to one of ordinary skill in the art at the time the invention was made that identical voltages are applied to the pair of multilayer capacitors taught by the admitted prior art as modified by Blackadar et al. because the capacitors are coupled to each other by a through hole.

Response to Arguments

4. Applicant's arguments filed 11/3/03 have been fully considered but they are not persuasive. Applicant argues Blackadar et al. do not teach applying to the capacitors voltages with an audible frequency in order to reduce audible sounds. It is noted the combination of the admitted prior art and Blackadar et al. teach a multilayer circuit board having two capacitors mounted thereon at substantially plane-symmetrical positions wherein during operation voltages which have frequencies varying in an audible frequency band are applied to the capacitors. Furthermore, the admitted prior art is readily combinable with Blackadar et al. (both from the art of mounting capacitors on circuit boards) to create a circuit board wherein the multilayer capacitors do not substantially affect the neutral axis of the circuit board (thus reducing vibrations).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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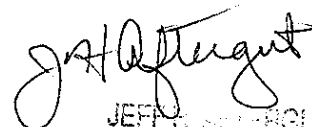
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.



John L. Goff



JEFF H. HOUGHT
PRIMARY EXAMINER
GROUP 1800